



First Year Teaching Scheme

Admission Year 2026-27

**Bachelor of Technology
Biotechnology**

Faculty of Engineering & Technology

Parul University

Vadodara, Gujarat, India

Semester – 1

NCrF Credit Level	Subject Code	Subject Name	Credit	Teaching Scheme			Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
				(Hours / Week)	Lect	Lab	Tut	T	P	CE	T			
4.5	03014401PC01	Basics of Biotechnology	4	4	-	-	20	-	20	60	-	40	-	100
	03019101BS02	Linear Algebra and Calculus	4	4	-	-	20	-	20	60	-	40	-	100
	03019201BS01	Physics of Semiconductors	4	3	2	-	20	20	20	60	30	40	25	150
	03019501BS01	Chemistry-I	4	3	2	-	20	20	20	60	30	40	25	150
	03010501ES01	Programming for Problem Solving	4	3	2	-	20	20	20	60	30	40	25	150
	03010001HM01	Principles of Communication Skills	1	-	2	-	-	20	-	-	30	-	25	50
	03010001MC01	Student Induction Program with Essence of Indian Knowledge System	0	12	-	-	-	-	50	-	-	20	-	50
		Total credits	21											

Lect - Lecture, Tut - Tutorial, Lab - Lab, T - Theory, P - Practical, CE - CE, T - Theory, P - Practical

Theory Passing % : 40 Practical Passing % : 50

Semester – 2

NCrF Credit Level	Subject Code	Subject Name	Credit	Teaching Scheme			Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
				(Hours / Week)	Lect	Lab	Tut	T	P	CE	T	P	Int.+Ext.	
4.5	03014402PC01	Cell Biology	2	2	-	-	20	-	20	60	-	40	-	100
	03019502BS01	Biopharmaceutical Chemistry	3	2	2	0	20	20	20	60	30	40	25	150
	03014402BS01	Mathematics for Biotechnology	3	3	-	-	20	-	20	60	-	40	-	100
	03010901ES02	Engineering Graphics and Design	4	2	4	-	20	20	20	60	30	40	25	150
	03010601ES01	Basic Electrical Engineering	4	3	2	-	20	20	20	60	30	40	25	150
	03010002HM01	Advanced Communication and Interpersonal Skills	2	1	2	-	40	20	-	60	30	40	25	150
	03010002MC01	Environmental Science	0	1	-	-	-	-	50	-	-	20	-	50
		Integrated Well-being: Mind, Behaviour and Digital Balance	-	1	-	-	-	-	50	-	-		25	50
	03M10002UE01	Privacy and Security in Online Social Media	3	3	-	-	20	-	20	60	-	40	-	100
	03M10002UE02	Design, Technology and Innovation	3	3	-	-	20	-	20	60	-	40	-	100
	06M10102UE02	Indian Economy: Some Contemporary Perspectives	3	3	-	-	20	-	20	60	-	40	-	100
	06M10202UE01	Principles of Management	3	3	-	-	20	-	20	60	-	40	-	100
	06M10502UE03	Intellectual Property	3	3	-	-	20	-	20	60	-	40	-	100
		Vocational Training / Professional Experience/Courses- (Mandatory for Exit) (MOOC/NPTEL)												
	03014402EX01	Introduction to cell Biology	4	4	-	-								
	03014402EX02	Industrial Biotechnology	4	4	-	-								
	03014402EX03	Metabolic Engineering	4	4	-	-								
	Total credits	21												

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** – Practical

Theory Passing % : 40 Practical Passing % : 50